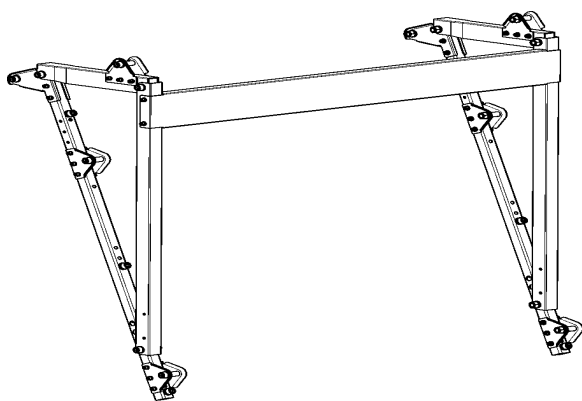


Service Manual

Plasma Display ceiling-hanging bracket TY-CE103PS10



WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE


There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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1 Warning

WARNING

Ensure that the installation location is strong enough to support long-term use.

- If its strength becomes insufficient over the course of long-term use, the display may topple over, possibly causing injury.

Installation and removal should only be carried out by a qualified technician.

- If the ceiling-hanging bracket is not installed correctly, the Plasma display may fall down and become damaged, and personal injury may result.

Make sure that all safety factors regarding strength of installation are observed.

- If the installation strength is insufficient, the display may fall down and personal injury may result.

Do not install in places which are unable to bear loads.

- If the strength of the installation surface is insufficient, the display may dropped and personal injury may result.

Do not disassemble or modify the ceiling-hanging bracket

- Otherwise the unit may be dropped and become damaged, and personal injury may result.

CAUTION

Do not install in places which are subject to humidity, dust, oil fumes, water vapour or excessive heat.

- These can have adverse effects on plasma display operation, and fire or electric shocks may result.

Do not use any displays other than those given in the catalogue.

- Otherwise the unit may be dropped and become damaged, and personal injury may result.

Do not install the plasma display so that it is taller than it is wide.

- Otherwise the product may fall down and personal injury may result.

When installing or removing the plasma display and pedestal, use a lowering device (machine), and ensure that the work is done by at least four persons.

- Otherwise the product may fall down and personal injury may result.

Leave a space of at least $11\frac{13}{16}$ inches (30 cm) at the top, left and right, and at least $5\frac{29}{32}$ inches (15 cm) at the bottom, and at least $7\frac{7}{8}$ inches (20 cm) at the rear.

- Do not cover the air inlet holes at the bottom or rear of the display, or air outlet holes at the top, or a fire may result.

Do not swing from the plasma display or its ceiling hanging bracket; do not suspend anything from the display or bracket.

- Otherwise the product may fall down and personal injury may result.

Remove the product that will not be used any longer.

- Otherwise the product may fall down and personal injury may result.

Requests regarding handling

- 1) Exercise care when selecting the location for the display because it may discolor or deform due to light or heat if it is placed where it is exposed to direct sunlight, or near a heater.
- 2) For cleaning, wipe the display using a soft dry cloth (made of cotton or flannel). If the unit is extremely soiled, first wipe off soiling with a neutral detergent diluted in water, and then wipe with a dry cloth. Do not use cleaners such as benzene, thinner or furniture wax because they may cause paint peeling. (If using a chemical wiping cloth, follow any precautions included.
- 3) Do not affix adhesive tape or stickers to the product. Doing so may dirty the surface of the wall-hanging bracket.
- 4) Take care during installation as shocks can cause 'panel cracks' to the plasma display unit.

Points to note during installation

Installation and removal work must be carried out only by a qualified technician.

If the unit is installed or removed improperly, the display may fall down and personal injury may result.

This equipment is a ceiling unit to suspend the Plasma Display from a ceiling structure for viewing purposes. The ceiling unit must not be installed in any locations other than ceiling structures with sufficient strength.

In order to ensure correct, problem-free operation of the Plasma Display, do not install the Display in any of the following places.

- Near sprinklers or fire/smoke detectors.
- Where there is a risk of exposure to vibration or impact.
- Near high-voltage wires or dynamic power supplies.
- Near sources of magnetism, heat, water vapor or soot.
- Locations exposed to air blown from heating equipment.
- Where droplets of condensation from an air conditioner or other unit may form.

When installing this ceiling unit, use a fixing method appropriate to the type of ceiling.

When installing the ceiling unit to a ceiling structure, use structural components appropriate to the material of the structure, and an installation method.

Provide adequate ventilation so that the temperature around the display does not rise above 104°F (40 °C). If there is insufficient movement of the air inside display, heat may build up inside the display, and fire may result.

Spread a soft blanket or cloth over the floor so that the stand and floor will not be marked or scratched during the assembly and installation work.

When screwing down the parts, ensure that the screws are neither insufficiently tightened nor over tightened.

Take sufficient care to ensure safety around you when performing the assembly and installation work or while moving about during the course of the work.

Do not use any components other than the packaged ones.

Do not install the Plasma Display underneath ceiling lamps (spotlights, halogen lamps, etc.). Otherwise, the cabinet may be bent or damaged by high heat.

PROFESSIONAL INSTALLATION IS REQUIRED.

**PANASONIC DISCLAIMS ANY PROPERTY DAMAGE AND/OR SERIOUS INJURY, INCLUDING DEATH
RESULTING FROM IMPROPER INSTALLATION OR INCORRECT HANDLING**

2 Specifications

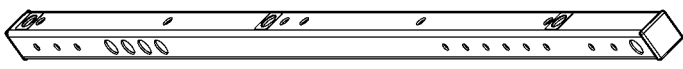
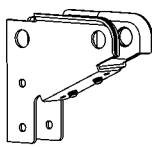
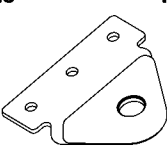





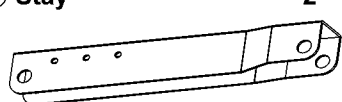
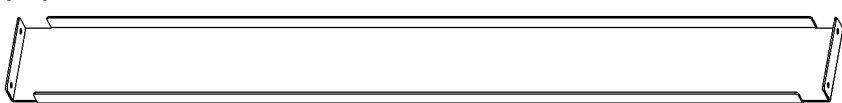

Model Name	TY-CE103PS10	Applicable models
Type	Plasma Display ceiling-hanging bracket	TH-103PF10 series
Angle Adjustment	5 settings (No incline, 5°, 10°, 15°, 20°)	
Dimensions	63 ³ / ₁₆ " (160.5cm) (W) x 26 ³ / ₁₆ " (66.5cm) (D) x 55 ¹⁵ / ₁₆ " (142.1cm) (H) *Maximum dimension at an angle of 20 degree.	
Weight	81.57 lb (37 kg)	
Dimensions with Packaging	65 ¹⁵ / ₆₄ " (165.7 cm) (W) x 8 ⁴⁷ / ₆₄ " (22.2 cm) (D) x 10 ³ / ₄ " (27.3 cm) (H)	
Weight with Packaging	92.59 lb (42 kg)	
Material	Entire pressed part : Melted galvanizing steel board (SGHC-MO-F06) Square pipe (Supporting post): Rectangular steel tube for machine structural use. (STKMR 40x40)	

3 Location of Controls and Components

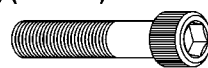


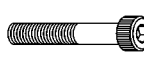





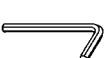

3.1. Constituent parts

(For both vertical hanging and inclined hanging)

■ **Major components** Components marked with are usable for inclined hanging and not used for vertical hanging.

Ⓐ Column (L/R) One piece on each side  (With six insulating sheets and two caps) Which is the left (L) column and which is the right (R), as well as the arrows showing which end of the columns is the top, are indicated on the labels.		Ⓑ Base 2  Do not loosen any screws already fixed to this component. (With insulating sheet)	
Ⓒ Plate 12  (With insulating sheet)	Ⓓ Collar 14 	Ⓔ Insulating collar (1) 8  Insulating collar (2) 8 	Ⓕ Protective collar 8 
Ⓖ Frame* 2 		Ⓗ Stay* 2 	
Ⓘ Joint* 1 		Ⓙ Gasket 6 	

■ Accessories

① M16 bolt (1 13/16 inches) (80 mm) 20  Hexagon socket head cap screw M16-80		⑥ Plain washer (large) 34  M16	⑨ Plain washer (small) 22  M8
② M8 bolt (2 5/8 inches) (60 mm) 22  Hexagon socket head cap screw M8-60		⑦ Spring washer (large) 20  M16	⑩ Spring washer (small) 22  M8
③ M8 bolt* (7 7/8 inches) (20 mm) 4  Hexagon socket head cap screw with washer M8-20		⑧ Nut (large) 14  M16	⑪ Nut (small) 26  M8
④ Allen wrench (small) 1  2 33/64 inches (6 mm)	⑤ Allen wrench (large) 1  5 33/64 inches (14 mm)		

Note

This product can be used in two ways: vertical hanging and inclined hanging. The number of components used varies depending on which way the product is used in. The components not used for installation should be kept with care.

Part No.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	Ⓘ	Ⓙ	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
Type of installation																					
Vertical hanging	1 on each side	2	12	10	8	8	0	0	0	6	16	22	0	1	1	26	16	10	22	22	22
Inclined hanging	1 on each side	2	12	14	8	8	2	2	1	6	20	22	4	1	1	34	20	14	22	22	26

4 Disassembly and Assembly Instructions

4.1. Prior to installation work

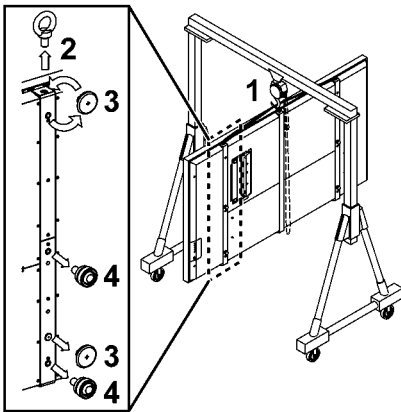
4.1.1. Check the strength of the installation location.

1. The ceiling unit for vertical hanging weighs approx. 33.1 lbs (15 kg) and that for inclined hanging (at an angle of 5, 10, 15, or 20 degrees) weighs approx. 81.6 lbs (37 kg). For the mass of the display to be installed on the ceiling unit, refer to the instruction manual for the Plasma Display.
2. When installing the ceiling unit, always support its weight with four or more wire ropes etc. and install two or more other wire ropes so as to prevent the unit from falling down onto personnel in the site even if it should come off. Besides, install a swing stop according to the circumstance.

Caution

- Before installing the ceiling unit, check the installation location of the ceiling for strength. If the installation location is not strong enough, reinforce the ceiling adequately.

4.1.2. Prepare the Plasma Display



Caution

- Because the display is heavy, handle it carefully by the use of lifting equipment (machine).
- The display has the operation part on its right side face. Do not bump the operation part against any things located around, during installation.

1. Place the hook of lifting equipment in the display's center eyebolt, lift up the display, and put it on soft stuff such as a blanket. (The display should be kept in an upright position.)
2. Unscrew the left and right eyebolts on the top of the display.
3. Remove eyebolt caps (in 2 places on each side) on the back of the display. Fit the just-removed eyebolt caps in the holes that eyebolts were removed from.
4. Unscrew the stand hooks with the Allen wrench supplied with the display.

* Removed eyebolts, eyebolt caps, stand hooks, and stand hook mounting bolts should be kept in storage with care.

Caution

The ceiling unit includes some components common to the "left-side" and "right-side" subassemblies. During assembly, the bolt-inserting direction for one subassembly should be opposite to that for the other so that the nuts are located inside when the Plasma Display is installed. (Bolts should be inserted from the label side of the column(A).)

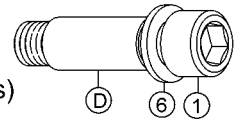
(In this manual, the procedures of assembling the "right-side" subassembly when viewed from the front of the Plasma Display are shown in the figures below.)

4.1.3. Preparation of components

Preparation of M16 bolts (11¹³/₁₆ inches) (80 mm) ①

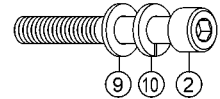
(Vertical hanging: 10 sets / Inclined hanging: 14 sets)

Install one plain washer ⑥ and one collar ⑤ in that order, on each M16 bolt (11¹³/₁₆ inches) (80 mm) ①.



Preparation of M8 bolts (23⁵/₈ inches) (60 mm) ② (22 sets)

Install one spring washer ⑩ and one plain washer ⑨ in that order, on each M8 bolt (23⁵/₈ inches) (60 mm) ②.



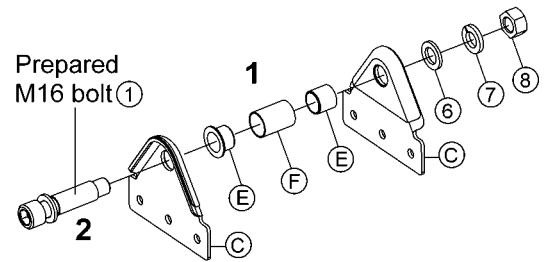
Preparation of plates ③

As shown in the right figure, prepare 6 sets of plates ③ and bolts.

1. Insert insulating collars ⑤ into the protective collar ⑥, and put them between plates ③.
2. Pass one prepared M16 bolt ① through, and finally fasten in place with the nut.

- The bolt should be securely tightened to the torque given below.

25~35 N·m



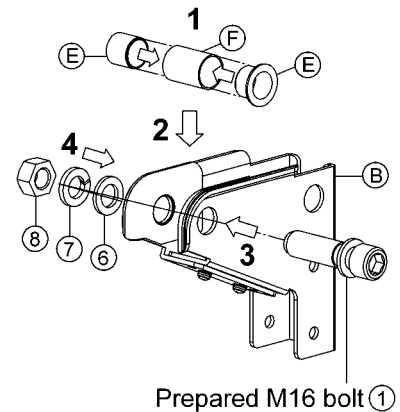
Preparation of base ④

As shown in the right figure, prepare 2 sets of base ④ and bolts.

1. Insert insulating collars ⑤ into the protective collar ⑥.
2. Put the protective collar ⑥ between the side plates of the base ④.
3. While holding the collars, pass one prepared M16 bolt ① through.
4. Fit washers on the bolt, and fasten in place with the nut.

- The bolt should be securely tightened to the torque given below.

25~35 N·m

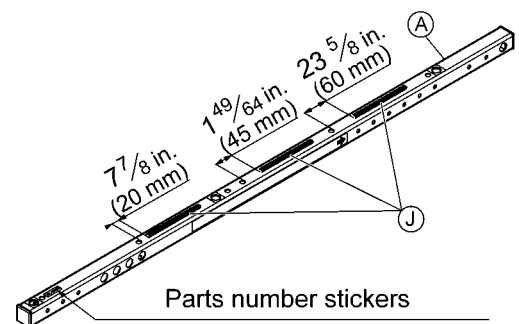


Preparation of columns (L/R) ①

As shown in the right figure, prepare 2 sets to attach the gaskets ① on the columns (L/R) ①.

Attach the three gaskets ① to the same surfaces of the two columns ① on which the parts number stickers are displayed.

- Attach the gaskets ① at the positions shown in the figure.



4.2. Assembly (Vertical hanging)

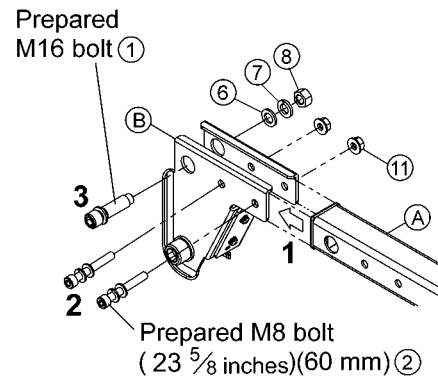
1. Install the base (B) on the column (A).

Install one prepared base (B) on each column (A).

1. Insert the column (A) between the side plates of the base (B).
2. Fasten in place with two prepared M8 bolts (23 ⁵/₈ inches) (60 mm) (2) and nuts (11).
3. Fasten in place with one prepared M16 bolt (1).

- The bolt should be securely tightened to the torque given below.

M16 bolt (1) 25~35 N•m M8 bolt (2) 12~14 N•m



Install the base (B) on column (A) with the surface of the column to which the gaskets have been attached facing down.

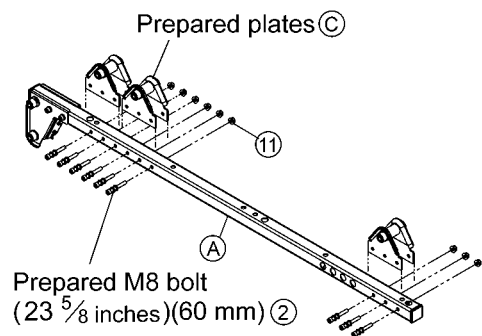
2. Install plates (C) on the column (A).

Install prepared plates (C) on each column (A).

1. Fasten prepared plates (C) to the column (A) with prepared M8 bolts (23 ⁵/₈ inches) (60 mm) (2) and nuts (11).
- Three plates (C) should be installed.

- The bolt should be securely tightened to the torque given below.

12~14 N•m



3. Install onto the Plasma Display.

Install each column assembled in the above step 2 onto the display.

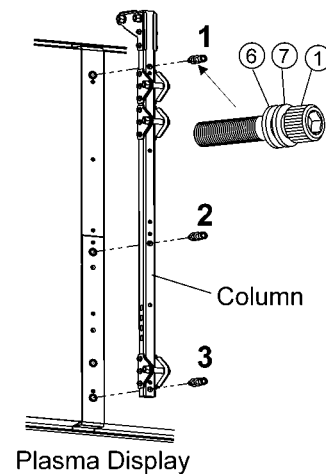
(Note)

Each column should be installed so that the L/R label affixed to it faces outside.

1. Prepare six sets of one M16 bolt (1), one spring washer (7) and one plain washer (6), which should be assembled in the order shown in the right figure.
2. Place each column on the display, and temporarily fix it with prepared bolts from the top down.
3. Confirm that the each column has been properly seated on the display, and then tighten the bolts securely.

- The bolt should be securely tightened to the torque given below.

25~35 N•m



4.3. Assembly (Inclined hanging)

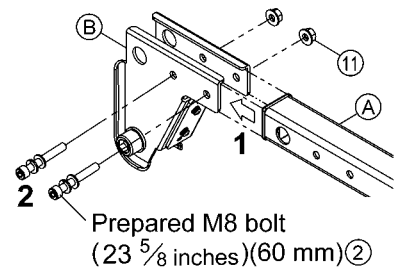
1. Install the base (B) on the column (A).

Install one prepared base (B) on each column (A).

1. Insert the column (A) between the side plates of the base (B).
2. Fasten in place with two prepared M8 bolts ($23\frac{5}{8}$ inches) (60 mm) (2) and nuts (11).

- The bolt should be securely tightened to the torque given below.

12~14 N•m



Install the base (B) on column (A) with the surface of the column to which the gaskets have been attached facing down.

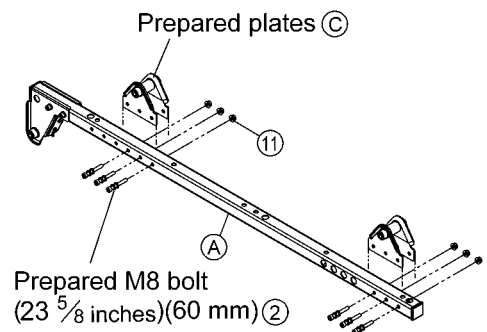
2. Install plates (C) on the column (A).

Install prepared plates (C) on each column (A).

1. Fasten prepared plates (C) to the column (A) with prepared M8 bolts ($23\frac{5}{8}$ inches) (60 mm) (2) and nuts (11).
- Two plates (C) should be installed.

- The bolt should be securely tightened to the torque given below.

12~14 N•m

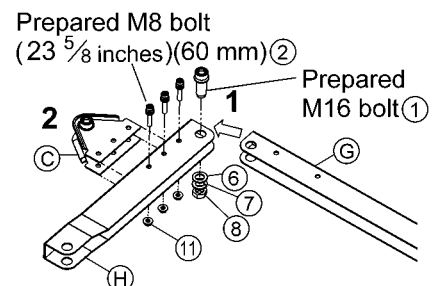


3. Assemble the frame (G) and the stay (H).

1. Insert the frame (G) into the stay (H), and fasten in place with one prepared M16 bolt (1).
2. Fasten one plate set (C) to the stay (H) with three prepared M8 bolts ($23\frac{5}{8}$ inches) (60 mm) (2) and nuts (11). One plate set (C) should be installed.

- The bolt should be securely tightened to the torque given below.

M16 bolt (1) 25~35 N•m
M8 bolt (2) 12~14 N•m



4. Install onto the Plasma Display.

Install each column assembled in the above step 2 onto the display.

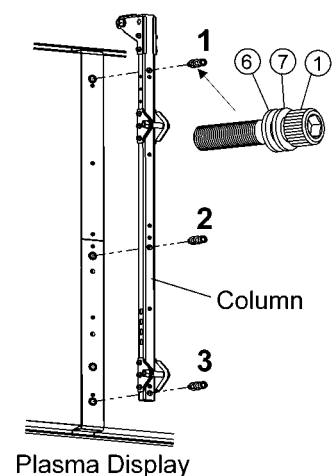
(Note)

Each column should be installed so that the L/R label affixed to it faces outside.

1. Prepare six sets of one M16 bolt (1), one spring washer (7) and one plain washer (6), which should be assembled in the order shown in the right figure.
2. Place each column on the display, and temporarily fix it with prepared bolts from the top down.
3. Confirm that the each column has been properly seated on the display, and then tighten the bolts securely.

- The bolt should be securely tightened to the torque given below.

25~35 N•m



5. Install the frame.

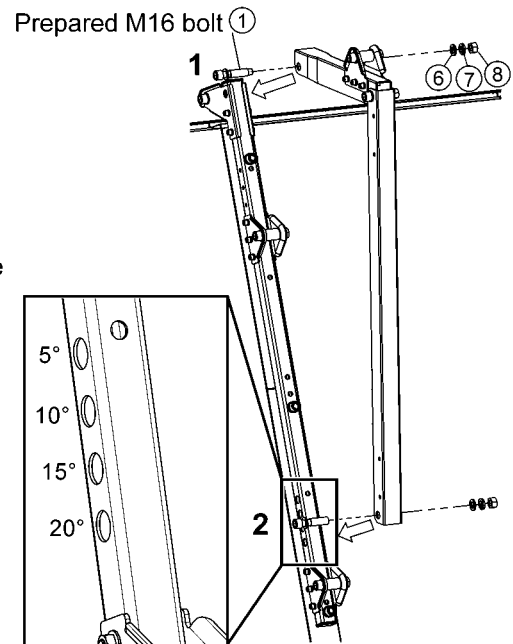
The display can take an angle of 5, 10, 15 or 20 degrees to the vertical plane.

Which assembly holes in the columns are to be used depends on the angle at which the display is to be installed.

1. Place one frame, assembled in the previous page, on each column, and fasten one end of the frame with one prepared M16 bolt ①.
2. Identify the hole corresponding to a desired angle, and fasten the other end of the frame with one prepared M16 bolt ①.

- The bolt should be securely tightened to the torque given below.

25~35 N•m



6. Install the joint

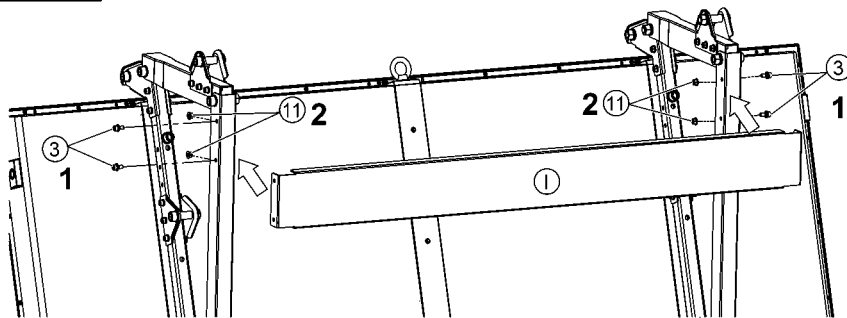
Install the joint ① onto the left and right frames.

1. As shown in the figure below, align the holes of the joint ① with those of each frame, and insert M8 bolts (7 7/8 inches)(20 mm) ③ from the outside.

2. Put the nuts ⑪ in from inside the frame, and fasten them with the M8 bolts (7 7/8 inches)(20 mm) ③.

- The bolt should be securely tightened to the torque given below.

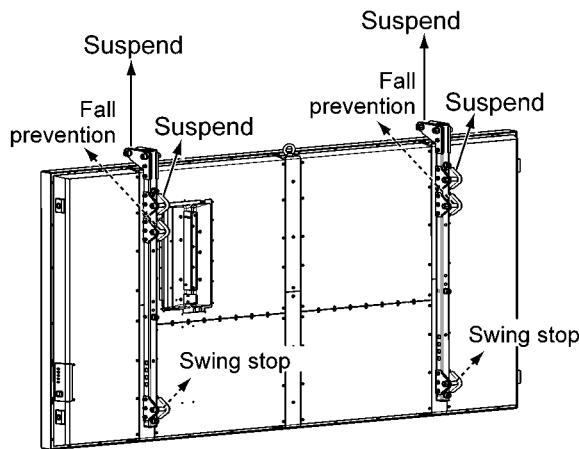
12~14 N•m



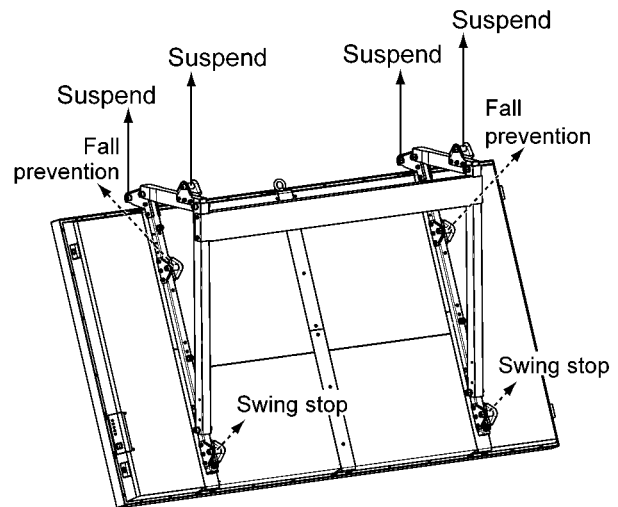
4.4. On-site installation

- Installation work must be carried out only by a qualified technician. We will bear no liability for defective installation.
- The ceiling unit for vertical hanging weighs approx. 33.1 lbs (15 kg) and that for inclined hanging (at an angle of 5, 10, 15, or 20 degrees) weighs approx. 81.6 lbs (37 kg). For the mass of the display to be installed on the ceiling unit, refer to the instruction manual for the Plasma Display.
- When installing the ceiling unit, always support its weight with four or more wire ropes etc. and install two or more other wire ropes so as to prevent the unit from falling down onto personnel in the site even if it should come off. Besides, install a swing stop according to the circumstance.

Vertical hanging



Inclined hanging



Caution

- After the completion of installation, unscrew the eyebolt at the top center of the Plasma Display and fit an eyebolt cap in the hole.

4.5. Removing the display

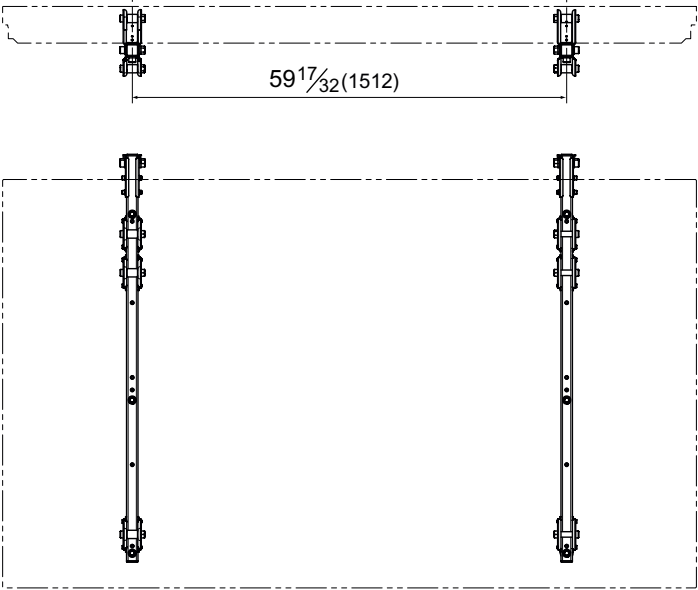
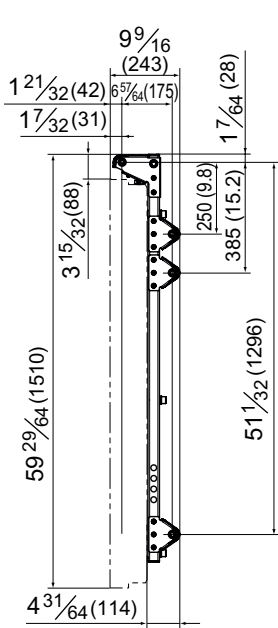
Reverse the installation procedure to remove the display.

Caution

- Because the display is heavy, handle it carefully by the use of lifting equipment (machine).

5 Dimensions

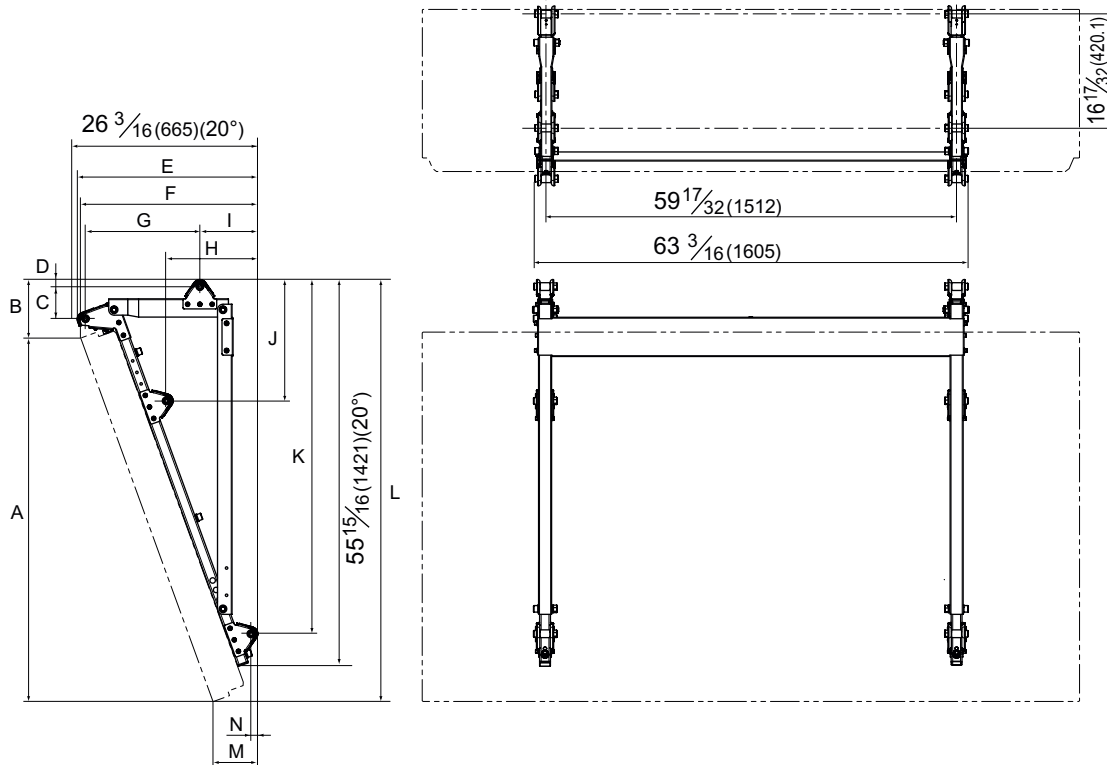
Vertical hanging



Units : inches (mm)

Inclined hanging


Units : inches (mm)



	5°	10°	15°	20°
	inches (mm)	inches (mm)	inches (mm)	inches (mm)
A	55 3/4 (1416)	55 3/16 (1400)	54 1/16 (1373)	52 19/32 (1336)
B	7 3/32 (180)	7 9/16 (192)	8 1/32 (204)	8 15/32 (215)
C	3 35/64 (90)	3 3/32 (100)	4 19/64 (109)	4 41/64 (118)
D	1 1/32 (26)	1 1/32 (26)	1 1/32 (26)	1 1/32 (26)
E	22 63/64 (584)	22 43/64 (576)	22 9/16 (573)	26 3/16 (665)
F	22 3/4 (578)	22 43/64 (576)	22 21/64 (567)	25 43/64 (652)
G	16 47/64 (425)	16 47/64 (425)	16 21/32 (423)	16 17/32 (421)
H	13 25/64 (340)	12 3/32 (307)	10 25/32 (274)	13 5/16 (338)
I	4 27/32 (123)	4 51/64 (122)	4 23/32 (120)	8 27/64 (214)
J	19 1/16 (484)	18 21/32 (474)	18 3/16 (462)	17 9/16 (446)
K	54 49/64 (1391)	53 31/32 (1371)	52 51/64 (1341)	51 17/64 (1302)
L	62 53/64 (1596)	62 43/64 (1592)	62 3/32 (1577)	61 1/16 (1551)
M	18 5/32 (461)	13 (330)	7 3/32 (200)	6 17/32 (166)
N	10 9/32 (261)	5 55/64 (149)	1 17/32 (39)	1 1/32 (26)

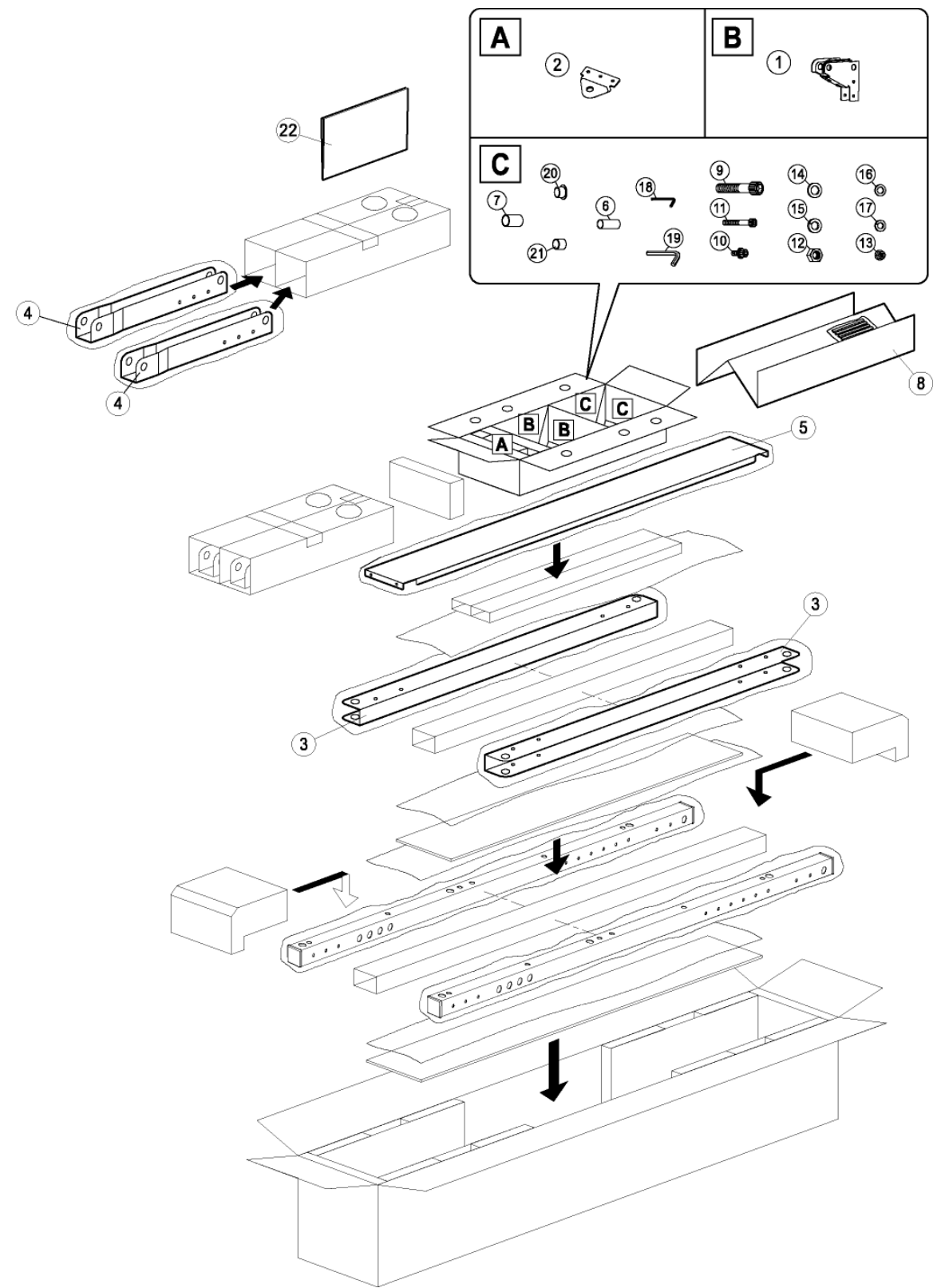
Model No. : TY-CE103PS Important Safety Notice

Note: Important Safety Notice

Components identified by  mark have special characteristics important for safety.

When replacing any of these components, use only manufacturer's specified parts.

Model No. : TY-CE103PS Packing Summary



Model No. : TY-CE103PS Parts List

Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
TY-CE103PS					
	1	TBLA0353	BASE ASSY	2	
	2	TBLA0382	PLATE ASSY	12	
	3	TBLA3636	FRAME	2	
	4	TBLA3637	STAY	2	
	5	TBLA3641	JOINT	1	
	6	TBLA3642	COLLARS	14	
	7	TBLA3669	PROTECTIVE COLLARS	8	
	8	TEWB257	GASKET	6	
	9	THEA188J	M16 BOLT (80mm)	20	
	10	THEA190J	M8 BOLT (20mm)	4	
	11	THEA191J	M8 BOLT (60mm)	22	
	12	XNH16EFJW4	HEXAGON NUTS (LARGE)	14	
	13	THNA0079	NUTS (SMALL)	26	
	14	XWH16L32FJ	PLAIN WASHER (LARGE)	34	
	15	XWB16BFJ	SPRING WASHER (LARGE)	20	
	16	THWC021J	PLAIN WASHER (SMALL)	22	
	17	THWA011J	SPRING WASHER (SMALL)	22	
	18	TKKX0016	HEXAGON WRENCH (6mm)	1	
	19	TKKX0017	HEXAGON WRENCH (14mm)	1	
	20	TMKY444	INSULATION COLLARS 1	8	
	21	TMKY462	INSULATION COLLARS 2	8	
	22	TQZH979	INSTRUCTION BOOK	1	